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ABSTRACT

Research and development projects for improvement of the administration of vocational education at the State level are described in the report. These projects, supported by the Office of Education for fiscal year 1975, are efforts to develop management information systems that will make available to State administrators information to aid in the planning and evaluation of vocational education programs. The report presents analyses of 23 projects conducted by State education agencies, colleges and universities, and nonprofit institutions in the design, development, and testing of comprehensive education management and information systems. Abstracts of the funded projects are included in the appendix, and contain information on the objectives or purposes of the individual projects, the procedures, and the expected project contribution. (NJ)

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IMPROVING THE ADMINISTRATION OF VOCATIONAL EDUCATION AT THE STATE LEVEL

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PROJECTS SUPPORTED IN FISCAL YEAR 1975 UNDER AUTHORITY OF SECTION 131(A) OF PART C OF THE VOCATIONAL EDUCATION AMENDMENTS OF 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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IMPROVING THE ADMINISTRATION OF VOCATIONAL EDUCATION AT THE STATE LEVEL

Projects Supported in Fiscal Year 1975 Under Authority of Section 131(a) of Part C of the Vocational Education Amendments of 1968

Jack A. Wilson

September 1975

Research Branch
Division of Research and Demonstration
Bureau of Occupational and Adult Education
U.S. Office of Education
Washington, D. C. 20202

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PREFACE

This synthesis report on research and development (R&R) projects supported in FY 1975 by the U.S. Office of Education (OE) for improving the administration of vocational education at the State level is based on an analysis of the individually funded applications. As indicated by the nature of the grant or contract awards (e.g., number of projects supported, Federal investment in the R&D area, focus of the various projects, and the geographic spread of the involved States), a concerted effort has been made by OE to assist State Departments of Education (SEA's) in developing information systems for vocational education to further strengthen the effectiveness and efficiency of vocational programs at the State and local levels.

This priority concern by OE is consistent with the emphasis in the Comptroller General's report to the Congress on the role of Federal assistance for vocational education. More specifically, the targeted R&D area addresses the General Accounting Office recommendation that OE "increase its efforts in the development of vocational information systems that will provide comparable data, and continuously review utilization of that data to improve vocational programs" (U. S. General Accounting Office, 1974).

Special acknowledgement is made of the assistance of the staff of the Center for Occupational Education, North Carolina State University at Raleigh, particularly Don W. Drewes, Deputy Director, for their detailed review and analysis of the management information systems or subsystems being designed, developed, or field tested for the SEA's. Grateful acknowledgement is also extended to Glenn C. Boerrigter, Chief, Research Branch, for his constructive comments and advice on the general format for this report, and the project directors for reviewing their abstracts to assure completeness and accuracy of statement.

Jack A. Wilson
Education Program Specialist

IMPROVING THE ADMINISTRATION OF VOCATIONAL EDUCATION AT THE STATE LEVEL

Background

Vocational leadership at the state level is becoming increasingly more complex. Internally, state administration is faced with growing responsibility for the solution of complex problems. Externally, changing social and economic conditions require a responsiveness that may seem at times overwhelming. Morgan et al. (1974) note that

> The rapid expansion of programs, the wide diversity of programs, and the flexibility required of State Departments to move in the direction indicated by the need have vastly complicated the responsibility of State leaders in vocational and technical education.

State agencies must continually make a variety of administrative decisions ranging from choices on the type and duration of vocational offerings at the secondary, postsecondary, and adult levels to the type of guidance, counseling, training, and placement services which should be made to special population groups such as the disadvantaged, handicapped, underemployed and unemployed.

These complicating circumstances matched with increased number of students to be trained, increased resources to be allocated, and greatly increased knowledge about the learning process have served to place additional stress and importance on the quality of decisions made regarding programs in vocational education. The vast complexities of administering a vocational education program at the State level suggests the need for a range of information which is current, accurate, immediately available, and in a form that can be understood and used by administrators. Unfortunately, such information or service is not currently available on any meaningful scale for the vast majority of State agencies. State Advisory Councils of Vocational Education continue to report problems with vocational education and related statistics in the area of internal planning, interstate comparisons, and cooperative action with other agencies in the State (National Advisory Council, 1974). Such data are not formated for use in planning, administering, and evaluating vocational programs. State education agencies must, according to a recent report to the Congress by the Comptroller General of the United States, increase their ". . . efforts in the development of vocational information systems that will provide comparable data, and continuously review utilization of that data to improve vocational programs" (U. S. General Accounting Office, 1974). Until this is done, State education agencies will not have the management capability needed for systematic planning and evaluating of vocational education programs.

Priority Concern

Given the above concern and need for vocational information by State administrators and those advisory bodies concerned with monitoring their efforts, the U. S. Commissioner of Education concluded that the administrative capability of utilizing information to make decisions about educational programs, short- and long-range, needs to be improved at the State level in order to maximize the attainment of vocational education goals. He likewise concluded that the administrative capability to utilize student supply, manpower demand, cost analysis, student placement and follow-up services, and evaluation information needs to be improved. Vocational administrators need better information to facilitate the improved articulation of vocational, occupational, manpower, and adult education programs across and within various educational programs administered or supported at the State level.

Toward this end, the Commissioner authorized under Section 131(a), Part C, P.L. 90-576 the support of applied studies and development projects that build on existing knowledge to design, develop, and field test comprehensive educational management and information systems that are results-oriented for vocational education at the State level. Support was provided for projects which focused on one or more of the following activities (Federal Register, 1975):

1. The design of a comprehensive educational management and information system for vocational education or one or more components;

2. The development of a comprehensive educational management and information system or one or more of the components; and

3. The field testing of a comprehensive educational management and information system or one or more of the components.

Applications Supported

Of the 361 applications submitted to the Office of Education for possible support in the Fiscal Year (FY) 1975 vocational education research competition, 49 focused on improving the administration of vocational education at the State level. Of the 49 applications, 22 (45 percent) were selected for grant support. In addition, a proposal for conducting a field trial of a management information system was provided contract support because of its national significance. As can be seen in Table 1 below, 17 of the 23 awards (74 percent) went to State Education Agencies (SEA's) while five (5) awards (22 percent) went to colleges and universities and one (1) award (4 percent) went to a non-profit institution.

Table 1. Grant/Contract Awards by Type of Institution

Type	Number	Percent
State Education Agencies	17	74
Colleges and Universities	5	22
Non-Profit Institutions	1	4
Total	23	100

The supported projects represented a Federal investment of $1,823,655. This investment--20 percent of the total Federal funds available in FY 1975 for the support of vocational research and development (R&D) projects--was complimented by additional investments on the part of the grant/contract recipients to provide a total investment in this targeted research area in excess of $2,000,000. In a number of instances, the recipient's contribution far exceeded the award from the Office of Education. Table 2 below indicates that SEA's received two-thirds of the Federal funds invested in this priority area while colleges and universities received slightly less than the remaining one-third. The size of the awards ranged from $20,000 to $223,237 with an overall average of $79,289.

Table 2. Total and Average Size of Federal Investment by Type of Institution

Type	Total	Average Size
State Education Agencies	$1,205,439	$ 70,908
Colleges and Universities	587,989	117,598
Non-Profit Institutions	30,227	30,227
Total	1,823,655	

Focus on Priority Activities

As shown in Table 3, twelve (12) of the 23 projects focused on design, development and field tests; two (2) projects focused on design and development; two (2) focused on development and field test activities; three (3) projects focused on design; and four (4) are concerned exclusively with field testing. System design activities are involved in 17 projects. Sixteen (16) projects deal with developmental activities. Field testing of a total system or components are specified in fifteen (15) of the projects.

Six (6) projects supported in FY 1975 build upon activities begun in FY 1974. These projects seek to further refine and extend the work accomplished in the preceding year. Some of the projects will integrate additional components into an existing MIS. Others will continue the development or field testing of additional subsystems.

Many of the SEA's granted support in this funding cycle have made substantial prior investments in designing and developing components of a management information system. Many of the components are at the field trial/test stage prior to their permanent installation in the system. As a result of the Office of Education investment in these ongoing State efforts to develop comprehensive systems for effective program management, the "state-of-the-art" is extended more rapidly than would otherwise be possible. And more importantly, each of the States is being provided with a MIS unique to the needs of its vocational education program and socio-economic setting.

The applications selected for support in FY 1975 were clearly targeted toward improving the administration of vocational education at the State level by means of a systems approach, i.e., the conceptualization, design, development, and field testing of a comprehensive vocational data system requisite to informed decision-making.

Abstracts of the funded projects are included in the Appendix and contain information on the objectives or purposes of the individual projects, the procedures or approach being used to achieve the objectives, and the expected project contribution.

Analysis of Projects Supported

Projects funded in FY 1975 are classified in matrix form in Table 4 according to the system components to be developed and/or revised and the developmental tasks to be accomplished in the course of the project. A state name in a specific cell of the matrix indicates that the state

Table 3. Focus on Priority Activities by State of Grant/Contract Recipient

State of Grant/Contract Recipient	Design	Development	Field Test
Alabama	•	•	•
Alabama	•	•	•
Arkansas	•		
Colorado	•	•	•
Connecticut	•		
Illinois	•	•	•
Indiana	•	•	•
Massachusetts			•
Missouri	•	•	•
Montana	•	•	•
Nebraska			•
New Hampshire	•	•	•
New Mexico	•	•	
North Carolina	•		
Ohio			•
Oregon		•	•
Rhode Island	•	•	•
South Dakota			•
Tennessee		•	•
Texas	•	•	
Washington	•	•	•
West Virginia	•	•	•
Puerto Rico	•	•	•

Table 4. A Matrix of Management Information System Components Under Development/ Revision in State Departments of Education Funded in FY 75 Under Authority of Part C, Vocational Education Amendments of 1968

DEVELOPMENTAL TASKS	MANPOWER DEMAND/SUPPLY	STUDENT ACCOUNTING	COST/FISCAL ACCOUNTING	STUDENT FOLLOW-UP AND PLACEMENT	PROGRAM ACCOUNTING	FACILITIES ACCOUNTING	PROGRAM EVALUATION	STAFF ACCOUNTING	MODELING AND SIMULATION	COMMUNITY ACCOUNTING	ROW TOTALS
DESIGN	(10) WA TX RI PR NC NH MO IN CO AL	(7) TX NC NM NH MT IN AL	(10) WV WA TX NC NH MO IN IL CO AL	(8) WV TX NC NM NH MT MO IL	(6) WA NC NM MT MO IN	(5) TX PR NC IN IL	(6) NC MT MO IL AL AL	(4) WA PR NC IN	(3) WA TX MO	(4) NC MO CT AR	63
DEVELOPMENT	(12) WA TX TN RI PR OR NH MO IN IL CO AL	(9) TX PR OR NM NH MO IN IL CO AL	(9) WV WA TX NH MO IN IL CO AL	(8) WV TX OR NM NH MT MO IL	(5) WA NM MT MO IN	(3) TX PR IN	(7) WA NH MT MO IL AL AL	(3) WA PR IN	(4) WA TX RI MO	(0)	60
FIELD TEST	(8) TN RI OR OH NH IN IL CO	(8) PR OR OH NH NE IN IL AL	(6) OH NH NE IN IL CO	(7) WV OR OH NH MT IL AL	(3) OH NE IN	(4) PR OH NE IN	(2) NH AL	(3) PR OH IN	(1) WA	(0)	42
IMPLEMENTATION	(6) WA PR NH ME IL CO	(7) SD PR NM NE MT ME IL	(3) WA ME NE	(4) SD NM MT ME	(5) WA NM NE MT CO	(2) PR NE	(0)	(2) WA PR	(2) WA ME	(0)	31
EVALUATION	(3) TN RT IL	(3) NM NE IL	(1) NE	(2) NM IL	(2) NM NE	(1) NE	(0)	(0)	(1) RI	(0)	13
COLUMN TOTALS	39	34	29	29	21	15	15	12	11	4	

proposes to accomplish that development stage for a specific component; e.g., field test a student accounting system. Since a state may propose more than one developmental task each state may have multiple entries. Dispersion of the states over the matrix indicates the scope of funded state activities.

The major stages in the development of a management information system are listed as design, development, field test, implementation and evaluation. Design includes activities such as organization of an MIS task force, identification and assessment of user information needs, preparation of a developmental plan, preparing specifications of a data collection and classification system, preparing specifications of a data processing and management system including specifications for supporting computer software, preparing specifications for an information delivery system. Development includes the activities necessary to produce systematic procedures for the collection, processing and delivery of information. Field test involves limited implementation and formative evaluation of system performation. Implementation refers to the activities necessary for full operationalization of the system. Evaluation denotes a summary evaluation of system effectiveness and efficiency.

Examination of the row totals in Table 4 shows that design is the most frequently funded developmental stage, followed by development, field test implementation and evaluation in that order. Analysis of the histogram of design activities as depicted in Table 4 reveals that design of manpower demand/supply system components and cost/fiscal accounting systems components are receiving the most emphasis with modeling and simulation, community accounting, and staff accounting receiving the least attention. Development effort is primarily focused on manpower demand/supply and cost/fiscal accounting components with student accounting, student follow-up and placement and program evaluation a close second. None of the funded projects propose to develop a community accounting system containing community related information such as community vocational education needs. Field testing is most frequent in manpower demand/supply and student follow-up and placement components and least frequent in modeling and simulation and program evaluation components. Student accounting systems are the most frequently implemented components. No effort is currently being funded in implementing community accounting components or program evaluation components. Summative evaluation efforts are most frequently concentrated in student accounting and manpower demand/supply.

The column totals in Table 4 are arranged in descending frequency and indicate a relative ordering of funded developmental effort across system components. Manpower demand/supply is receiving the most developmental attention with 39 funded developmental tasks--10 states proposed design tasks, 12 states proposed developmental tasks, 8 states proposed field test tasks, 6 states proposed implementation tasks and 3 proposed to accomplish evaluation tasks. Student accounting components and cost/

fiscal components are next in order of emphasis with 34 and 29 proposed tasks, respectively. Community accounting and simulation and modeling components received the least developmental emphasis.

Summary

Analysis of the projects being supported to improve the administration of vocational education at the State level indicate that a wide range of systematic approaches are being used to improve the administrative process.

A variety of methodologies are being tested to assure that manpower demand/supply, student characteristics, follow-up of former students, State and local staffing, instructional facilities, and related data are continuously generated, currently available and appropriately utilized by different user groups, e.g., curriculum developers, guidance and counseling personnel, and administrative planners. Further, there is indication that the management information systems being developed at the State level are being designed to serve not only the needs of the State but local education agencies in the areas of planning, management, and evaluation. A basic reason for this is that if a statewide management information system is to function properly and serve the State government effectively, it must rely on the local education agencies for cooperation in collecting accurate and timely information. Some of the State systems are being structured to produce planning, management and evaluation information based on the individual data needs of the participating local school districts. As more States fully implement comprehensive educational management information systems, the significance of the system and its utility for guidance, counseling, placement and follow-up of students will be recognized and, indeed, utilized. Disadvantaged students, for example, can be more effectively served in such instances, as can curriculum developers, facility planners, teachers, administrators and others involved in the teaching-learning process.

In addition, certain of the funded efforts are anticipated to result in tested alternative program planning, management, and evaluation systems with specifications for their appropriate use by State and local personnel. Such tested systems should contribute to improving the accountability of the community at large and various policy-making bodies concerned with the allocation of resources to assure relevant vocational offerings to all clientele groups.

Considerable progress has been made by various States in establishing a comprehensive MIS or major components of such a system. Although there have been some national efforts at exchanging information on the state-of-the-art regarding vocational education information systems, there appears to be a need for even greater exchange of information,

forms, and techniques being used by the various State agencies, as well as the local education agencies. Problems of definition must be resolved if data are to become comparable across States and aggregated at the national level. The quality of the data being used as input into these systems must be improved. Better use must be made of the data that are currently being collected or planned for collection. Care must be taken that State and local education agencies do not collect more data than can be used. In the recent past, most States have focused on developing a system for collecting and storing a variety of fiscal and enrollment information. All too frequently, it is assumed by these system designers that other staff personnel will utilize the data when in actuality, the personnel do not know how to use the management tools which are relevant to analyzing such data. Although some State agencies are building some inservice training into their projects (i.e., training personnel on how to use the facility and analyze the information generated by the system), too little attention is given to this key activity which should be carried on concurrently with the design and development of the system.

Finally, more effort needs to be expended in extending the scope of MIS development. Much of the current effort has been expended in developing accounting systems designed to collect, process, and report information for operational decisions that require well-defined, detailed and highly accurate information about the past. However, planning is future oriented and requires information about the anticipated future effects of current policy alternatives. The nascent State efforts in modeling and simulation reflect an awareness of the need for policy relevant information and should be encouraged and supported to the maximum possible extent.

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APPENDIX

ABSTRACT

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50013

TITLE: Management Information System for Occupational Education (MISOE)

PROJECT DIRECTOR AND ORGANIZATION: Dr. William G. Conroy, Jr.
Division of Occupational Education
Massachusetts Department of Education
182 Tremont Street
Boston, Massachusetts 02111 (617) 454-0494

GRANT PERIOD: July 1, 1975 - December 31, 1975

OBJECTIVES OR PURPOSES

1. To implement parts of an occupational education census data system which provides a description of the skills by occupational with which students exit programs and the cost of occupational education programs, by school.
2. To mount data from a Retrospective Impact Study which estimates the differential impact of occupational and academic education on society and students on an interactive computer system and to analyze this data.

PROCEDURE OR APPROACH

1. Those parts of the census data system which are appropriate for implementation will be put into place during the 1975-76 school year, including terminal performance objectives (TERMOBs) for about 80% of the enrollment in secondary education in Massachusetts. (For a description of TERMOBs see the American Vocational Journal of May 1975, "TERMOBs: Performance Objectives With A Bigger Bite," P. 42, and for a description of the MISOE census data system see the Journal of Research and Development in Education, Winter, 1974, University of Georgia, Athens, Georgia. This census data system is now transportable to other states.)
2. The Retrospective Impact Study is designed to study the relationship between various secondary program mixes in Massachusetts, including specific occupational education programs, and subsequent career and lifestyle development patterns for students who did or should have graduated in 1969 and 1973. This study includes controls for learning ability and SES and certain school characteristics, such that the independent effect of either program or student and school characteristics upon career or lifestyle development can be estimated.

EXPECTED CONTRIBUTION TO EDUCATION

Each of these activities will provide Massachusetts with an improved basis for planning and managing occupational education and should provide an opportunity for others to capitalize upon this experience.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50017

TITLE: The Design of a Management Information System for Occupational Education in Texas

PROJECT DIRECTOR AND ORGANIZATION: Mr. Ray Barber, Director
Division of Occupational Research and Development
Department of Occupational Education and Technology
Texas Education Agency
201 East 11th Street
Austin, Texas 78701 (512) 457-4641

GRANT PERIOD: July 1, 1975 - December 31, 1975

OBJECTIVES OR PURPOSES

1. To identify the kinds of information needed by decision makers for allocating resources and planning programs in occupational education.
2. To identify strengths and weaknesses, inefficiencies and information gaps in the educational data gathering and processing systems currently in operation.
3. To design a management information system for occupational education in Texas incorporating all or part of the characteristics of other existing systems.
4. To provide policymakers for occupational education in Texas with knowledge of the requirements, processes, and capabilities of management information systems in shaping management decisions.

PROCEDURES OR APPROACH

1. Texas Education Agency (TEA) policymakers will meet to identify information needs for the management of occupational education in Texas.
2. TEA staff and staff from the Massachusetts Department of Education's Management Information System for Occupational Education (MISOE) will conduct an in-depth study of existing information systems in Texas, and will develop a data sampling design for the state.
3. TEA staff will study existing information systems in other states, including MISOE. MISOE and TEA staff will participate in simulated decisionmaking experiences, formulating hypothetical policies for occupational education both with and without the use of MISOE.
4. TEA staff will prepare recommendations for a system design. From those alternatives, the state's Commissioner of Education will recommend a system design for acceptance by the State Board of Education.

EXPECTED CONTRIBUTION TO EDUCATION

The project will identify the characteristics of a management information system for occupational education in Texas and the rationale for selection of a system design, ways in which the system will be integrated with TEA's ongoing programs and procedures, and the procedures, funds, equipment, and personnel required to develop the system. The system design should be useful to other agencies planning to develop management information systems.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50021

TITLE: A Comprehensive System for the Evaluation of Individualized Manpower Training Sites

PROJECT DIRECTOR AND ORGANIZATION: Mrs. Donna M. Seay
Southeast Director
Technical Education Research Centers
418 South Perry Street
P.O. Box 4158
Montgomery, Alabama 36101 (205) 262-7784

GRANT PERIOD: July 1, 1975 - June 30, 1976

OBJECTIVES OR PURPOSES:

1. Analyze the Individualized Manpower Training System (IMTS) data (collected by the Univ. of West Florida) on which to base management decisions leading to uniform, precise, and effective implementation of the IMTS procedures at six IMTS sites.
2. Analyze the necessary data at IMTS and non-IMTS sites to define relevant, distinguishing factors.
3. Analyze the necessary data leading to a comparative evaluation of student achievement at each IMTS site, among the various sites, and among IMTS and non-IMTS sites.
4. Recommend data collection procedures to serve as inputs to a computerized information system currently being constructed at the Univ. of West Florida.
5. Document all results in a final report.

PROCEDURES OR APPROACH

Using criteria developed for participation in the computerized information system, a survey will be made to select three non-IMTS sites as controls. Data collection forms will be audited and revised where necessary. Six IMTS and three control site manager will be trained in using the revised forms for the system. A computer program will then be written to analyze data from the control sites with the IMTS sites and between IMTS sites.

EXPECTED CONGRIBUTION TO EDUCATION

A major project outcome will be a comparative analysis between IMTS and comparable non-IMTS site on installations, student achievement, attendance and dropouts. The data can be analyzed for both summative and formative assessments useful in planning and operating. The software will be computerized information system can serve as a general, operational model for use by vocational administrators.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50022

TITLE: Development of an Alternative Statewide Management System for Vocational Education Using Regional Planning for System Design, Implementation, and Field Testing

PROJECT DIRECTOR AND ORGANIZATION: Mr. Don K. Gentry
Executive Office/State Director
Indiana State Board of Vocational and Technical Education
120 West Market Street, 16th Floor
Indianapolis, Indiana 46204 (317) 633-4841

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

1. Identify three regional planning groups responsible for developing a regional plan that interface with a state management information system by July 15, 1975.
2. A State Task Force will develop a management information system for adeministration and planning of vocational education by November 23, 1976.
3. Analyze the impact regional plans have on the existing data system and existing State Laws by December 15, 1976.
4. Provide a summarization of State Administrative System and State Law changes needed to implement the management information system developed by December 15, 1976.

PROCEDURE OR APPROACH

The State Board of Vocational and Technical Education will award contracts to three regional vocational groups to develop regional plan for vocational education that will interface with a State Management information system using information from the three regional planning groups.

EXPECTED CONTRIBUTION TO EDUCATION

Outcomes anticipated would be a regional planning model or models for Indiana, and a State Management Information System that is efficient. Fragmentation among State Agencies bringing about competition, duplication, and dissipation of resources would be avoided. More efficient use of present resources for vocational education will occur as well as development of plans for increasing resources in the future.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50034

TITLE: Design and Interactive Interface System for a Management Information System in Colorado

PROJECT DIRECTOR AND ORGANIZATION: Dr. Robert F. Barnes
Director, RCU
State Board for Community Colleges
and Occupational Education
207 State Services Building
Denver, Colorado 80203 (303) 892-3011

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

1. Develop interactive interface system between job demand and job supply components to output training needs by program area.
2. Develop a system for collecting common cost data base from all institutions at all levels--secondary, area vocational schools, state system community colleges and local district community colleges.
3. Expand job supply components to include company-trained personnel and in-migration.
4. Develop interactive interface system among training needs output, program cost factor and training station availability components.
5. Provide output data from Objectives 1 and 3 to planners and decision makers from program decisions based on need and cost.
6. Develop and implement and inservice training program for users.

PROCEDURE OR APPROACH

The objectives will be achieved by the development of an expanded job supply and common base cost components; refinement of the job demand and training station components; developing and field testing data collection instruments to identify numbers of industry-trained and estimating in-migration employees; updating existing job demand components; updating data collection for the trainning station system with existing data; collecting, updating and editing job supply data for analysis; and development of inservice training programs for users of the interface system outputs.

EXPECTED CONTRIBUTION TO EDUCATION

This effort will resuit in improved job demand and supply data for arriving at a training need index (a measure of surplus or deficit of employable manpower by OE program code); a common cost data base and training station data base for arriving at program need data for use by decision makers at the State and local levels.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50038

TITLE: A Model for Developing Alternative Administrative Strategies for Maximizing Comprehensive Vocational Program Planning and Evaluation

PROJECT DIRECTOR AND ORGANIZATION:
Dr. Jack D. Nichols
Director
Research Coordinating Unit
Arkansas Department of Education
Little Rock, Arkansas 72201 (501) 371-1855

GRANT PERIOD: June 15, 1975 - November 15, 1976

OBJECTIVES OR PURPOSES

The overall purpose of this project is to develop and implement a school-community based model for maximizing the vocational education goals in a local community. The project is designed to explore administrative strategies and alternatives to improve the coordination of all resources for assessment, planning and management techniques. More specifically, the goals are to develop and implement:

1. An inservice program for local staff on strategies for planning and evaluation.
2. A comprehensive data collection system for assessing community needs.
3. A viable school community occupational system.
4. Improved coordination of curriculum with business, industry and community needs.

Objectives are stated in performance terms in the narrative of the project.

PROCEDURE OR APPROACH

The project is designed as a multi-school approach with three model sites in the State. A local project director will be identified in the selected school districts. This team will include at least a school administrator, a potential vocational director, a counselor, and vocational personnel in the district. The project teams will develop in-depth plans of action at a summer workshop. Local project teams will organize advisory councils, conduct brief inservice education for local personnel and establish a calendar of events to accomplish the goals and objectives. Strategies will be identified for forging a closer linkage between the school and the community. Five follow-through seminars will be conducted during the project. A program plan with high priority needs will include strategies for implementation.

EXPECTED CONTRIBUTION TO EDUCATION

A model plan of action for a concerted effort to maximize vocational education at the local level. Improved methods, techniques and strategies for assessing and planning through closer community linkage.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50077

TITLE: Nebraska Vocational Information System

PROJECT DIRECTOR AND ORGANIZATION: Mr. Elton B. Mendenhall
Director, Research Coordinating Unit for Vocational Education
University of Nebraska
Box 33, Henzlik Hall
Lincoln, Nebraska 68508 (402) 472-3337

GRANT PERIOD: January 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

The Nebraska State Department of Education has developed a plan for the conceptualization, design, development, and implementation of a vocational information system encompassing six major phases necessary to support administrative decisions. Of the six phases, embracing assessment, priority determination, design, testing, implementation, and evaluation, the first three were completed during the initial period of support. During the second period of support, Phases IV, V, and VI will be pursued with the following objectives:

1. To test the components of the vocational information system through a trial run with a sample of local school districts using instruments, procedures and computer programs developed and adapted during Phases I,II, and III, during 1976.
2. To modify instruments, etc., as prescribed by evaluation during the sample testing.
3. To diffuse the revised instruments, etc., into the administrative activities of the State Department's Division of Vocational Education.
4. To provide for continuous evaluation and adjustment through scheduled system review and modification (Phase VI).

PROCEDURE OR APPROACH

The Test Phase will support validation of instruments and system through a trial run of the entire program with a selected sample of local schools. The Implementation Phase will consist of installation and training for operation of the system by staff of the Division of Vocational Education. Training requirements will be determined by the advisory committee and division staff.

EXPECTED CONTRIBUTION TO EDUCATION

The expected results of this project is the further development and eventual implementation of an information system supportive to the administrative function of the referenced Division. This project should provide the vehicle for adjusting administrative staff to new functions of improved vocational education planning and administration, and provide input to national data gathering efforts. It would also compile data for evaluation decisions regarding costs of manual data handling compared to automated and semiautomated data handling for vocational education program reporting.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50084

TITLE: Development of a State Agency Vocational Education Planning and Decision-Making System

PROJECT DIRECTOR AND ORGANIZATION:
Mr. Wilford R. Glasscock
Acting Project Director
Research Supervisor
Finance, Planning and Evaluation Component
Office of the Superintendent of Public Instruction
Helena, Montana 59601 (406) 449-3693

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

Develop and implement a comprehensive planning and decision-making system for the administration of vocational education in Montana. Namely, these are:

1. To develop a student characteristics subsystem that contains student input data as it relates to enrollment/exit in proprietary, adult and nonpublic schools and public secondary and post-secondary vocational schools, too (data at such levels are now available.) Follow-up data will be extended to include more details on post-secondary students.
2. To develop and evaluation system that will provide data necessary for post-secondary evaluation and accreditation and the evaluation of curriculum and instruction.

PROCEDURE OR APPROACH

Communication lines between federal, state and local agencies concerned with vocational education/job market data will be developed. Voc ed decision-makers then will be contacted to determine what data beyond that now supplied, are needed--when and in what priority. Once data and time requirements are known, the source of the data will be made known. New or revised collection instruments will be developed and tested; the data will be converted to meaningful reports on a pilot basis. Evaluation feedback will be used to improve planning and development processes. A procedural manual will be written and maintained for administrative use.

EXPECTED CONTRIBUTION TO EDUCATION

The effort will result in the development and implementation of a comprehensive evaluation subsystem and the expansion, development and implementation of a student characteristics subsystem to provide for the correlation of information on the accuracy of program offerings (curriculum and instruction) as related to post-graduate vocational student behaviors.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50088

TITLE: Follow Through - Management Information System

PROJECT DIRECTOR AND ORGANIZATION: Mr. L. E. Bak
Assistant Director
Division of Vocational Education
South Dakota Department of Public Instruction
222 West Pleasant Drive
Pierre, South Dakota 57501 (605) 224-3423

GRANT PERIOD: July 1, 1975 - June 30, 1976

OBJECTIVES OR PURPOSES:

The objectives of this project are: To implement a follow through system developed for post-high school students, to develop a procedure or mechanism for the flow of information from vocational programs to industry, to develop a procedure or mechanism for the flow of information from industry to vocational and technical schools and secondary schools which will assist the schools in curriculum change as the industrial job requirements change, to develop and conduct a follow-up system and initiate and test a workable follow-up instrument, to develop a "certification of program completion" which will identify individual student employment capabilities, and to develop a "directory of employers".

PROCEDURE OR APPROACH

Student Entry Information Form will be administered at the post-secondary education level. The various survey forms (Entry, Exit, First-Year Follow-Up, Fifth Year Follow-Up, Employer Follow-Up) will be modified for use at the secondary level. This activity will be followed by conducting 1st year follow-up of students, their employers and a 5th year follow-up. At the conclusion of the survey effort, the subsystem will be evaluated to determine if modification should be made in the instruments.

EXPECTED CONTRIBUTION TO EDUCATION

This effort will result in a Statewide uniform procedure for assessing the training given vocational students once they enter the labor force and feedback information will be used in making curriculum changes; guidance and counseling and administrative decisions.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50109

TITLE: Development of a Management Information System of the Puerto Rico Research Coordinating Unit, Phase II

PROJECT DIRECTOR AND ORGANIZATION: Dr. Vidal Velez Serra
Director, Research Coordinating Unit
Department of Education
Commonwealth of Puerto Rico
Hato Rey, Puerto Rico 00919 (809) 765-5850

GRANT PERIOD: July 1, 1975 - June 30, 1976

OBJECTIVES OR PURPOSES

Phase II of the Puerto Rico Management Information System (MIS) is aimed at further development of subsystems for the comprehensive system, namely manpower supply data, teacher information, and program facilities. More specifically, the objectives are to:

1. Obtain revelant data on students by programs, occupations, levels, target groups, economic sectors, and type of institution as well as needed data on teachers.
2. Generate accurate, up-to-data data on the manpower supply and job market demand in Puerto Rico.
3. Develop occupational matrices that will serve for the planning of occupational education in Puerto Rico.
4. Produce required output data need for planning and evaluation.

PROCEDURE OR APPROACH

Major activities for the accomplishment of these objectives will center around the evaluation and revision of Phase I activities, developing teachers and facilities file forms, up-dating supply-demand components data, collecting data for teachers and facilities subsystems, developing and tabulating occupational matrices for planning purposes, coordinating and disseminating data to local regional and state levels, revising computer programming and interfacing supply-demand data. Output data will then be utilized in establishing priorities for vocational and technical education programs.

EXPECTED CONTRIBUTION TO EDUCATION

This project will provide for the interfacing of supply and demand data, a requisite for occupational education planning within the Commonwealth of Puerto Rico. Moreover, the expanded MIS will serve to provide local level personnel, especially vocational directors, hard basic data on regional needs for manpower resources, available and projected facilities, output data on follow-up studies and teaching resources which are available. Local personnel, as a result of having factual information, will then be in a position to incorporate local or regional data into their plannind and evaluation efforts.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50123

TITLE: Vocational Technical Information System

PROJECT DIRECTOR AND ORGANIZATION: Mr. Roger A. Labodda
Director, Program Development Unit
Vocational Education Division
New Mexico State Department of Education
Santa Fe, New Mexico 87503 (505) 827-2329

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

Revise the V-TIS to give the State Department of Education and local school districts adequate information about manpower needs, student placement, follow-up, cost analysis, needs assessment and other information requisite to equitable distribution of monies under a statewide public school funding formula; to analyze equipment requirements and capabilities; to write computer programs in appropriate language; to verify program logic using test data; to test and debug present programs; to evaluate and modify existing programs; to design data based collection forms; to prepare federal reports and printouts; to design machine logic flow charts; to prepare instruction sheets for programmer; to serve as an advisor and coordinator of data collection; to define data needs of the Vocational Unit and the Department of Education.

PROCEDURE OR APPROACH

Objectives will be reached in three phases: Preparatory phase will make necessary adjustments in Ohio State University's System for Statewide Evaluation of Vocational Information (adopted by New Mexico SDE) to make it compatible with New Mexico's "hardware." Implementation phase will establish procedures for efficient dissemination and retrieval of data from school districts prior to computerization. Revision phase will make adjustments in programming and data collection upon consideration of what is returned from the field. The project will employ a full-time programmer/systems analyst to accomplish the objectives outline above.

EXPECTED CONTRIBUTION TO EDUCATION

When New Mexico has a vocational information system that will provide accurate information, decisions can be made on a more objective basis at State and local levels. The SDE can supply better direction to local agencies in designing good vocational programs, and the SDE will be in a better position to gain support within and from the State Legislature through improved communication.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50127

TITLE: Alabama Vocational Management Information system

PROJECT DIRECTOR AND ORGANIZATION: Dr. Stanley D. Patterson
Supervisor of Research and Evaluation
Division of Vocational Education
and Community Colleges
Alabama Department of Education
868 State Office Building
Montgomery, Alabama 36130 (205) 832-3476

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

To design and implement a management information system (MIS) that will provide to decision makers accurate, usable and timely data and information concerning input, output, and impact of vocational education. Objectives are:

1. Design a MIS embracing student accounting, fiscal accounting, manpower analysis, and program evaluation.
2. Develop automated data collection and processing for: post-secondary enrollments, adult follow-up, Industrial Development Training, secondary program evaluation, and supply-demand interface.
3. Field test automated data processing of the following components: enrollment reports, secondary and post-secondary enrollment updating, annual teacher reports, technical college follow-up report.

PROCEDURE OR APPROACH

The general approach will be to evaluate and consolidate existing components of data systems and to design and develop additional components to contribute to a comprehensive management information system. In-service training will be conducted to insure that all sub-systems are compatible and subject to being integrated. A detailed overall plan for a comprehensive system will be developed concurrent with the development and field testing of various sub-systems.

EXPECTED CONTRIBUTION TO EDUCATION

The implementation of the total vocational education management information system will result in a larger proportion of the clientele in the State being served more effectively and efficiently with the limited resources available for vocational education. Data will be available on the needs of individuals, society, and industry. Impact information will show cost recovery ratios, placement effectiveness, societal returns, values to industry, and product evaluation.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50139

TITLE: Development of a Comprehensive Management and Information System for the Division of Vocational-Technical Education, New Hampshire State Department of Education

PROJECT DIRECTOR AND ORGANIZATION:
Dr. Lila C. Murphy
Director, Research Coordinating Unit
Division of Vocational-Technical Education
New Hampshire State Department of Education
105 Loundon Road
Concord, New Hampshire 03301 (603) 271-3276

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

1. Design a comprehensive management-information system with implementation and evaluation procedures.
2. Establish a reliable, accessible data base required for a comprehensive maagement-information system.
3. Establish an Occupational Information Center which will provide current information to persons and groups requesting and needing assistance.
4. Develop and test a statewide program evaluation model and design plans for implementation in 1976-77.

PROCEDURES OR APPROACH

After reviewing the literature, instruments will be designed and tested to collect data via face-toface visits with all agencies providing vocational programs and services. An on-line data base will be accessible through a remote entry device. Reports generated will be evaluated for usefulness to participant agencies. A model for evaluating programs will be designed and field-tested. A resource center to serve the State will be established with dissemination and evaluation procedures specified.

EXPECTED CONTRIBUTION TO EDUCATION

The statewide MIS will provide decision makers at the State and local level with current information for analyzing manpower needs, setting priorities, program planning and evaluation. Better use of limited resources in expected. Students, teachers, administrators and the business and industrial community will be the benefactors of this effort.

PROJECT NUMBER: 498AH50147

TITLE: A Project to Design, Develop and Test a Comprehensive Management Plan for Vocational Education in Missouri

PROJECT DIRECTOR AND ORGANIZATION: Dr. W. R. Miller
Chairman, Department of Practical Arts and Vocational Technical Education
College of Education
University of Missouri-Columbia
Columbia, Missouri 65201 (314) 2882-3275

GRANT PERIOD: July 1, 1975 - December 31, 1975

OBJECTIVES OR PURPOSES

1. Formulate a general systems approach to long-range planning for vocational education in Missouri through 1990.
2. Identify, evaluate and assemble current and/or projected data on manpower, student placement, follow-up, job success, and job satisfaction; cost data, nature and scope of vocational education program.
3. Determine public attitudes toward vocational education and design a public information scheme in response to those findings.
4. Provide criteria and guidelines for Area Vocational Schools.
5. Develop alternative formulae for allocation of vocational resources.
6. Devise a functional plan for meeting the research priorities.
7. Establish criteria and a system for continuous evaluation.

The above and other objectives would provide direction for program development as well as planning for evaluation of vocational education.

PROCEDURE OR APPROACH

At the initiation of the project a Task Force composed of lay persons from state government, private business, industry and education will be established with responsibility for delineating goals and objectives leading to the development of a systems approach for long range planning. Various data base will be developed for synthesis and use in determining alternative allocation formulae, funding sources and schemes, administrative structures and delivery systems. These alternative proposals will then be synthesized for an administrative plan and eventual management plan. This plan will, in turn, provide for the ongoing evaluation and planning cycle.

EXPECTED CONTRIBUTION TO EDUCATION

This effort will result in a management and information system that will improve and extend vocational education in Missouri.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50157

TITLE: Design and Development of Fiscal and Student Follow Up Components of the West Virginia Comprehensive Data System for Vocational Education (CDS-VE)

PROJECT DIRECTOR AND ORGANIZATION: Mr. Clarence E. Burdette
Assistant State Superintendent of Schools
Bureau of Vocational, Technical and Adult Education
West Virginia Department of Education
Charleston, West Virginia 25305 (304) 348-2346

GRANT PERIOD: July 1, 1975 - July 31, 1976

OBJECTIVES OR PURPOSES

1. To establish a data base for determining specific vocational program operating costs of approved vocational curricula.
2. To establish a data base for evaluating selected aspects of vocational education program effectiveness through follow up surveys.
3. To involve state and local level personnel in the cooperative planning and development of financial and follow up systems.
4. To provide information needed by state and local administrators in planning, budgeting, operating and evaluating vocational education programs.

PROCEDURE OR APPROACH

Finance Component: Contract for services with Cabell County Schools for systems design of finance component requisite to conversion of state charge of accounts to program budgeting format and revision of computer programs for trial run of new system. Concurrent with this activity will be the development of program data forms for incorporation into the local educational agency planning guide and the preparation of procedural manuals and data forms in relation to system. Local administrators and finance officers would then be instructed on the system and expected outcomes. Follow-Up Component: A Flow Chart System will be designed along with survey questionaires and required materials. Once the system has been pilot tested and revised or redesigned as necessary, the system will be implemented.

EXPECTED CONTRIBUTION TO EDUCATION

The implementation of the finance component of the data system will allow state and local level administrators to determine average operating costs of different curricular offerings, establish trends in the costs of courses and make related types of comparisons. Similarly, the follow-up survey component will be used in updating the curricula, determining program effectiveness and conducting cost-benefit and related types of analyses.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50165

TITLE: An Assessment of Current Methods of Fulfilling Empirically Determined Educational Information Needs

PROJECT DIRECTOR AND ORGANIZATION:
Dr. Robert L. Morgan
Project Director
Center for Occupational Education
P.O. Box 5096
North Carolina State University
Raleigh, North Carolina 27607 (919) 737-3127

GRANT PERIOD: July 1, 1975 - September 30, 1976

OBJECTIVES OR PURPOSES

1. Develop a self-assessment procedure for determining the extent that state vocational information systems can meet empirically determined informational requirements identified in a national needs assessment.
2. Implement the self-assessment procedure in selected states, analyze self-assessment.
3. Develop a dictionary of informational requirements.

PROCEDURE OR APPROACH

A list of standard characteristics descriptive of vocational education data systems will be developed along with instructions for their use by state personnel in describing those systems. After pilot testing, the assessment format will be used to obtain data on various state vocational data systems. A sample of the assessment returns will then be analyzed by site visits to evaluate validity. If acceptable, the completed returns will be analyzed in relation to national needs assessment data. The methods used by each state to satisy information requirements noted in the needs assessment will be reported and alternative means currently being used to meet specified information requirements will be identified.

EXPECTED CONTRIBUTION TO EDUCATION

The dictionary of informational requirements, user guidelines, and associated technical reports will have application at national, state and local levels. An empirical determination of the uniformity and comparability of data across state systems can provide a base for establishing a national vocational education data system.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50177

TITLE: Comprehensive Planning and Management of Washington State Vocational Education

PROJECT DIRECTOR AND ORGANIZATION: Mr. Laurence H. Flinn
Program Specialist
State of Washington Coordinating Council for Occupational Education
Olympia, Washington 98504 (206) 753-1300

GRANT PERIOD: June 1, 1975 - November 20, 1976

OBJECTIVES OR PURPOSES

1. Implement reorganization and reorientation from a traditional educational to a management organization and structure.
2. Improve existing systems to provide information needed by State Vocational Administration for planning and management programs.
3. Improve previous accomplishments in developing a manpower forecast and planning system for vocational education at both the state and local levels.
4. Improve interfaces with both State and National sources and users of information needed to plan and manage vocational education programs.
5. Solicit and support special studies for feasibility and problem solving pursuant to extending, expanding, and implementing improved forcasts, planning and management at the State and local level.
6. Provide the necessary information and training necessary for the public, and state and local administration, to understand and use the management systems and techniques developed, to improve delivery of vocational education services at both state and local levels.

PROCEDURE OR APPROACH

In achieving the above goals, a vocational education program code/census code matching model will be developed and validated; a five year vocational education forcast for the state will be produced and the process documented. Follow-on assistance and grant supports will be provided to pilot schools currently implementing forecasting techniques, to support local planning and management of vocational education. Local research studies will also be supported to determine the feasibility and practical implementation of planning and management systems at the local level. Vocational administrators and key public opinion leaders will be oriented and trained on the implementation of the planning and management systems.

EXPECTED CONTRIBUTION TO EDUCATION

This project will develop a forecast capability to support comprehensive planning, as well as the development of a management and organization structure for improved service delivery.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50217

TITLE: Continued Development and Implementation of the Multifarious, Student-Based, Management Information System

PROJECT DIRECTOR AND ORGANIZATION:
Dr. Ronald D. McCage
Coordinator, Research and Development Unit
Division of Vocational and Technical Education
Illinois Board of Vocational Education
1035 Outer Park Drive
Springfield, Illinois 62706 (217) 782-6420

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

1. To further refine and integrate the previously developed subsystem components (student supply, manpower demand, supply/demand interface, and follow-up) into the Multifarious, Student-Based, Management Information System (MIS).
2. To develop linkages between the MIS and the components of the program cost, student placement, three-phase evaluation, and an occupational education coordination council (OECC).
3. To expand the MIS from its current four-county area to the ten-county analytic region and explore new approaches to better utilizing available data.
4. To revise and expand, where necessary, reporting procedures and output formats of the MIS.

PROCEDURE OR APPROACH

The student supply, manpower demand, supply/demand interface, and follow-up components have been developed and intially field-tested within a four-county area. The cost and evaluation components are partially developed, but linkages with the overall MIS are incomplete. The teacher supply/demand, placement, and OECC components are in the design phase. Linkages among the components, such as typing follow-up to the supply/demand comparisons, will be given particular emphasis. Development of the teacher supply/demand component and the feasibility of a placement component will be completed.

EXPECTED CONTRIBUTION TO EDUCATION

The information generated by the MIS will have a significant impact at the state and local level in all areas of vocational education, including planning, budgeting, decision-making, reporting, and evaluation.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50221

TITLE: A Need Assessment for Career Planning and Preparation in Connecticut

PROJECT DIRECTOR AND ORGANIZATION: Dr. Philip T. Masley
Chairman, Vocational and Technical Education Department
School of Education
Central Connecticut State College
1615 Stanley Street
New Britain, Connecticut 06050 (203) 225-7481

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

1. To collect selected data which concerns itself with the career aspirations, plans and needs of Connecticut state residents.
2. To collect selected data which concerns itself with current guidance practices, career education planning and current labor market needs.
3. To compare these data so that recommendations may be made for career planning and guidance of selected samples of the citizenry of the state.

PROCEDURE OR APPROACH

A comprehensive needs assessment will be designed, including the identification of target populations, developing procedures for selecting sample, designing instruments, field testing instrument, and revising instruments if necessary. Need assessment data will be collected along with data on current guidance practices, career education planning and current labor market needs. Following the analysis of the data, work would be initiated on comprehensive career achievement monitoring and career guidance systems. The results of the comprehensive career achievement monitoring system will be assessed and workshops conducted on the content and uses of needs assessment data. Clients (e.g., colleges, schools, employment agencies) will be provide evaluative data and recommendations for change. Concurrent with this activity, new in-service training materials will be prepared along with user guides for career guidance. Project outcomes will be evaluated.

EXPECTED CONTRIBUTION TO EDUCATION

The administration of career and vocational education will be improved at the local level as administrators, counselors, and teachers will have better information on students and labor market needs.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50245

TITLE: Implementation of a State Wide Computer-Based Occupational Information System with Multi-Facet Delivery Systems

PROJECT DIRECTOR AND ORGANIZATION:
Dr. Walter A. Cameron
Assistant Director
Research Coordinating Unit
University of Tennessee
909 Mountcastle Street
Knoxville, Tennessee 37916 (615) 974-4466

GRANT PERIOD: July 1, 1975 - June 30, 1976

OBJECTIVES OR PURPOSES

1. To computerize the present Tennessee occupational information data to provide on-line access as well as computer output microfiche.
2. To develop manual pin-sorts for exploring both the Tennessee junior high and the secondary school level occupational information.
3. To develop delivery systems applicable for presenting occupational information to special user groups, e.g., blind and disadvantaged students.
4. To develop user guides on the various occupational information delivery systems.
5. To provide cost data of and evaluate reactions of students, teachers, counselors, and parents to the various delivery approaches.

PROCEDURE OR APPROACH

The present Secondary INFOE (Information Needed for Occupational Entry) data base will be computerized to provide on-line teletype terminals to access information. Computer output microfiche (COM) will be obtained from computer tapes to provide students with manual access to the occupational data. The computerized delivery system, designed to provide localized information, will be pilot tested in selected Tennessee secondary schools. A manual pin-sort made up of job title cards with pin-sort holes will be developed for systematically accessing data. Occupational information will be reproduced in braille and on audio tapes for blind students and on filmstrips (with audio tapes) for selected types of disadvantaged students. User guides with media packages will be provided inservice training on the various delivery approaches. Users will be queried on the effectiveness of the delivery systems and on improvements needed. Actual cost data will be maintained.

EXPECTED CONTRIBUTION TO EDUCATION

This effort will result in a model for delivering occupational information through various delivery approaches.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50343

TITLE: An Information Network and Simulation Model for Vocational Education

PROJECT DIRECTOR AND ORGANIZATION: Mr. Reo Beaulieu
Planning Specialist
Rhode Island Department of Education
199 Promenade Street
Providence, R. I. 02840 (401) 277-3152

GRANT PERIOD: July 1, 1975 - June 30, 1976

OBJECTIVES OR PURPOSES

1. To establish an Information Exchange Network among the State Departments of Administration, Education, Employment Security, Labor, Social and Rehabilitative Services, Economic Development, and Community Affairs in which manpower supply and demand information can be systematically exchanged, organized, and disseminated to appropriate users.
2. To test the validity of a predictive manpower simulation model as an analytic and planning tool for vocational education and manpower training administrators.

PROCEDURES OR APPROACH

Objective 1: Identify existing and missing demographic, labor market, vocational education and manpower training data elements; design collection plan for missing data;plot desired information dissemination paths; establish standard operating procedures for the Network; and prepare summary handbook of manpower information.
Objective 2: Incorporate available data in the prototype simulation model; subject the model to expert judgement and opinion; and assess model validity by its ability to reproduce historical data and its usefulness as an analytic and planning tool.

EXPECTED CONTRIBUTION TO EDUCATION

The project will provide a common manpower supply and demand data base for agencies involved in meeting the occupational and training needs of the citizens of Rhode Island, and a planning tool for the planning and administration of vocational education programs.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50353

TITLE: Models for the Use of a Data Base in Planning State and Local Vocational Programs

PROJECT DIRECTOR AND ORGANIZATION:
Mr. Donald M. Gilles
Coordinator, Career Education Program
Development and Evaluation
Oregon Department of Education
Salem, Oregon 97310 (503) 378-3597

GRANT PERIOD: July 1, 1975 - December 31, 1976

OBJECTIVES OR PURPOSES

1. To more effectively use state and local data to improve vocational program planning and the curriculum development process at the state, community college, and secondary levels.
2. To design, develop, and test a system to improve the competencies of state and local personnel in the use of data for program planning, curriculum development, and career guidance.

PROCEDURES OR APPROACH

A set of procedures using state level data (emphasizing manpower supply and demand, enrollments, follow-up information, and task analyses) will be developed and tested to help improve the planning of career and vocational programs at the State Department of Education, Lane Community College, and Portland School District, along with approaches for applying supplemental local data. Procedures will also be developed to use the data in the improvement of the curriculum development process. This effort will be followed by inservice programs for training state staff, regional coordinators, and local program planners in the application of the data.

EXPECTED CONTRIBUTION TO EDUCATION

The project will produce a minimum of four products. These include guides on how to use the data at (a) state departments of education, (b) community colleges, and (c) local school districts, and a plan for inservice training of personnel involved in career and vocational education decision making at the state, community college, and secondary school levels.

PROJECT ABSTRACT

PROJECT NUMBER: 498AH50379

PROJECT TITLE: A Field Trail of the Management Information System for Vocational Education (MISVE)

PROJECT DIRECTOR AND ORGANIZATION: Dr. Harold Starr
The Center for Vocational Education
Ohio State University
Columbus, Ohio 43210

GRANT PERIOD: April 15, 1975 - January 15, 1976

OBJECTIVES OR PURPOSES:

(1) To assess the comprehensiveness, usefulness, and efficiency of the information subsystem's information flow procedures and data collection instruments.
(2) To assess the efficiency and usefulness of the computer software subsystem.
(3) To prepare a system documentation package.
(4) To produce a plan for field testing and validation of the MISVE.

PROCEDURES:

This basic approach will be the determination of documentation which will provide for a detailed system description of the general MISVE, its two subsystems, and specific subsystem elements, e.g., data base structure, data collection instruments, edit, load, and update programs. This study will also produce the documentation required for transfer planning; that is, documentation needed by potential MISVE users to adapt, install, operate, and maintain MISVE.

EXPECTED CONTRIBUTION TO EDUCATION:

(1) Documents which describe MISVE and are required by potential system users to adopt, install, operate, and maintain MISVE.
(2) A plan for field testing and validation of MISVE.
(3) A project final summary report.